

App. No. 09/939,162
Amendment Dated July 8, 2004
Reply to Office Action of March 25, 2004

REMARKS/ARGUMENTS

According to the Office Action mailed March 25, 2003, claims 1-26 are rejected. Claim 25 is rejected under 35 U.S.C. 112, second paragraph, as not particularly pointing out and distinctly claiming the invention. Claims 1-3, 11-13, 15-16, and 20-26 are rejected under 35 U.S.C. 102(b). Claims 4-9, 14, and 17-19 are rejected under 35 U.S.C. 103(a). Claims 1, 13, 20, and 25 have been amended. Claims 1-26 remain pending.

I. Rejection of claim 25 under 35 U.S.C. 112

Claim 25 is rejected under 35 U.S.C. 112, second paragraph, as not particularly pointing out and distinctly claiming the invention. The Office Action states that there is insufficient antecedent basis for "the efficiency" in the claim. Claim 25 has been amended without further limiting the scope of the claim. Reconsideration of claim 25 is respectfully requested.

II. Rejection of claims 1-3, 11-13, 15-16, and 20-26 under 35 U.S.C. 102(b)

Claims 1-3, 11-13, 15-16, and 20-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Larus, "Whole Program Paths", ACM SIGPLAN NOTICES, Vol. 34, No. 5, Atlanta, GA, May 1999, pp. 259-269. Applicant respectfully disagrees as explained below.

With regard to claim 1, amended claim 1 recites, "generating a stream flow output that displays the occurrences of repetitively occurring data access sequences in the stream of data access references while ignoring non-repetitively occurring data access sequences." In one instance, the stream flow output of amended claim 1 is exemplified by stream flow graph 325 shown in FIGURE 3. In contrast to the claimed invention, Larus does not disclose this type of output. Larus discloses discovering "hot subpaths" (see section 4.2) but does not take the

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analysis further. Larus does disclose a graph that indicates execution frequencies for sequences of acyclic paths. (see Larus, Figure 5, and accompanying discussion on page 263, left column, lines 11-22) However, this graph is not the same or equivalent to the stream flow output limitation of amended claim 1. The graph of execution frequencies is directed to "the number of times that prefix of this sequence is executed immediately before the suffix of the sequence." (Larus, page 263, left column, lines 11-13) In contrast, the stream flow output of amended claim 1 is directed to displaying, "the occurrences of repetitively occurring data access sequences in the stream of data access references while ignoring non-repetitively occurring data access sequences." The execution frequencies in Figure 5 of Larus are directed to "repetitively occurring data access sequences" but to every node and therefore does not "ignore(ing) non-repetitively occurring data access sequences." Accordingly, there is no disclosure in Larus that corresponds to the stream flow output limitation of the claimed invention. Since Larus does not disclose all of the limitations of amended claim 1, Larus does not anticipate amended claim 1.

With regard to claims 2-3 and 11-12, claims 2-3 and 11-12 are dependent upon claim 1, and are therefore not anticipated by Larus for at least the reasons stated above.

With regard to claim 13, amended claim 13 recites, "a stream flow detector that is configured to generate a stream flow output that displays the occurrences of repetitively occurring data access sequences in the stream of data access references while ignoring non-repetitively occurring data access sequences". As described above with relation to amended claim 1, Larus does not disclose a stream flow output. Accordingly, since Larus does not disclose all of the limitations of amended claim 13, Larus does not anticipate amended claim 13.

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With regard to claims 15-16, claims 15-16 are dependent upon claim 13, and are therefore not anticipated by Larus for at least the reasons stated above.

With regard to claim 20, amended claim 20 recites, "generating a stream flow output that displays the occurrences of repetitively occurring data access sequences in the stream of data access references while ignoring non-repetitively occurring data access sequences." Again, this limitation is similar to the limitation recited in amended claim 1. Accordingly, for at least the reasons stated with regard to claim 1, Larus does not anticipate claim 20.

With regard to claims 21-26, claims 21-26 are dependent upon claim 20, and are therefore not anticipated by Larus for at least the reasons stated above.

III. Rejection of claims 4-9, 14, and 17-19 under 35 U.S.C. 103(a)

Claims 4-9, 14, and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Larus in view of Minard (US Patent Number 6,247,020). Applicant respectfully disagrees as explained below.

With regard to claim 4-9, claims 4-9 are dependent upon amended claim 1. As stated previously, Larus does not teach or suggest all of the limitations of amended claim 1. The addition of Minard does not cure this shortcoming of Larus. Minard is directed to a user interface that "lets the user explore, edit, design, and debug all in one unified window." (see Minard, abstract, lines 6-7) There is no suggestion in Minard with regard to the user interface for providing, "a stream flow output that displays the occurrences of repetitively occurring data access sequences in the stream of data access references while ignoring non-repetitively

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occurring data access sequences", as recited in amended claim 1. Accordingly, the combination of Larus and Minard does not teach or suggest all of the limitations of amended claim 1. Therefore, claims 4-9, which are dependent on claim 1, are patentable over Larus in view of Minard.

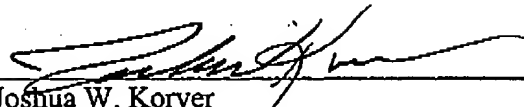
With regard to claims 14 and 17-19, claims 14 and 17-19 are dependent upon amended claim 13. Amended claim 13 recites a similar stream flow output limitation as recited in amended claim 1. Accordingly, for at least the reasons stated above, the combination of Larus and Minard does not teach or suggest all of the limitations of amended claim 13. Therefore, claims 14 and 17-19, which are dependent on claim 13, are patentable over Larus in view of Minard.

In view of the foregoing amendments and remarks, all pending claims are believed to be allowable and the application is in condition for allowance. Therefore, a Notice of Allowance is respectfully requested. Should the Examiner have any further issues regarding this application, the Examiner is requested to contact the undersigned attorney for the applicant at the telephone number provided below.

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Respectfully submitted,

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